



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

T.R

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/695,089 10/25/00 MAEDA

T 500.37445CX1

020457 WM01/1029
ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON VA 22209

EXAMINER

CHU, K

ART UNIT

PAPER NUMBER

2651

DATE MAILED:

10/29/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/695,089

Applicant(s)

MAEDA ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre-Amendment filed on 12/12/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/366,641.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

Specification

1. The disclosure is objected to because of the following informalities:

(a) on page 1, lines 1-4, under the section "CROSS REFERENCE TO RELATED APPLICATION", Applicant should updated the status of the parent application.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

3. Claims 6 and 9-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ide et al. (U.S. Patent 5,513,165).

Ide teaches a recording medium having as all of the elements and means as recited in claims 6 and 9-16. For example, Ide teaches the following:

(a) as in claim 6, a disk-like substrate (Fig. 7; a substrate layer is an inherent feature of an optical recording medium);

(b) as in claim 6, at least one track being provided on the substrate (Fig. 7; track is an inherent feature of an optical recording medium);

(c) as in claim 6, a zone including said at least one track (Fig. 7; a recording zone/area is an inherent feature of the recording medium);

(d) as in claim 6, the zone stores a lookup table (Fig. 7; information of a recorded test pattern is a kind of look-up table which stored in a zone);

(e) as in claim 6, the look-up table having information about edge shifting of at least one of a leading and trailing edge of at least one recording pulse (Fig. 7; the test pattern contains information about a pulse's edge and its locations);

(f) as in claim 9, the lookup table includes information about edge shifting of a leading edge of a first recording pulse and a trailing edge of a last recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations);

(g) as in claim 10, the lookup table includes information about edge shifting of a leading and trailing edge of a first recording pulse and a trailing edge of a last recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is

inherently included in the test pattern because all recording pulses are not equally spaced);

(h) as in claim 11, the lookup table includes information about edge shifting of a leading edge of a first recording pulse and a leading and trailing edge of a last recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is inherently included in the test pattern because all recording pulses are not equally spaced);

(i) as in claim 12, the lookup table includes information about edge shifting of a leading and trailing edge of each of first and a last recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is inherently included in the test pattern because all recording pulses are not equally spaced);

(j) as in claim 13, the lookup table includes information about edge shifting of a leading edge of a first recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is

inherently included in the test pattern because all recording pulses are not equally spaced);

(k) as in claim 14, the lookup table includes information about edge shifting of a leading and trailing edge of a first recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is inherently included in the test pattern because all recording pulses are not equally spaced);

(l) as in claim 15, the lookup table includes information about edge shifting of a trailing edge of a last recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is inherently included in the test pattern because all recording pulses are not equally spaced); and

(m) as in claim 16, the lookup table includes information about edge shifting of a leading and trailing edge of a last recording pulse of a plurality of recording pulses (Fig. 7; the test pattern contains information about a pulse's edge and its locations, in addition, information about edge shifting of a recording pulse is inherently included in the test pattern because all recording pulses are not equally spaced).

4. Claim 17 is rejected under 35 U.S.C. § 102(b) as being anticipated by Ide et al. (U.S. Patent 5,513,165).

Ide teaches a recording medium having as all of the elements and means as recited in claim 17. For example, Ide teaches the following:

(a) a timing adjusting controller to adjust a timing of a recording pulse (Figs. 7 and 8; the recording waveform generator is a pulse timing adjusting controller);

(b) a disk-like substrate (Fig. 7; a substrate layer is an inherent feature of an optical recording medium);

(c) at least one track being provided on the disk-like substrate (Fig. 7; track is an inherent feature of an optical recording medium);

(d) a zone including said at least one track (Fig. 7; a recording zone/area is an inherent feature of the recording medium); and

(e) wherein said zone stores information relating to a predetermined timing of a pulse for said recording medium which is detected by said apparatus (Fig. 8; recording pulses has predetermined timing in order to enable encoding/decoding).

5. Claim 18 is rejected under 35 U.S.C. § 102(b) as being anticipated by Ide et al. (U.S. Patent 5,513,165).

Ide teaches a recording apparatus for recording information on a recording medium having as all of the elements and means as recited in claim 18. For example, Ide teaches the following:

(a) a detector which detects information stored on the recording medium (Fig. 7; a detecting means is an inherent feature of a recording apparatus);

(b) the detecting of the stored information relates to a predetermined timing of a recording pulse for the recording medium (Figs. 7 and 8; the stored information/pulse train has a predetermined timing/spacing in order to be properly detected); and

(c) a controller which adjusts a timing of a recording pulse which is recorded on the medium based on the information detected by said detector (Fig. 7; the recording waveform generator is the controller).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ide et al. (U.S. Patent 5,513,165).

Ide teaches an optical recording medium very similar to that of the instant invention. However, Ide does not teaches the following:

(a) as in claim 7, the lookup table includes a list of values which are determined by combinations of a length $M(n)$ of a mark being currently written and at least one of a length $s(n-1)$ of a space precedent to the mark and a length $s(n+1)$ of a space subsequent to the mark, and which can be positive and negative; and

(b) as in claim 8, the lookup table includes information about edge shifting of at least one of a leading and trailing edge of one recording pulse for recording a mark $3T_w$ long.

With respect to above items (a) and (b) about mark length, mark space and space length between pulses are not novel. According to various information encoding methods and their laser power compensations, a pulse train such as Applicant's or Ide's has their own specific waveform. In other words, various lengths and spacings of marks in a pulse train are conventional features under a conventional information recording system.

Since Applicant's recording medium is used in a conventional information recording system, it would have been obvious to one of ordinary skill in the art at the time of invention to apply the above unspecific mark length and space length as in items (a) and (b) in Ide's test pattern/pulses, because Applicant's length and spacing values such as $M(n)$, $s(n+1)$, $s(n-1)$ and $3T_w$ are just arbitrary values which are not related to a specific information recording system.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hurst, Jr. (5,631,887) is pertinent because Hurst teaches a pulse pattern stored in a look-up table.

Finkelstein et al. (5,586,099) is pertinent because Finkelstein teaches a laser power controlled system having a look-up table.

10. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for
entry. Or:

(703) 746-6909, (for informal or draft communications,
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor
(Receptionist).

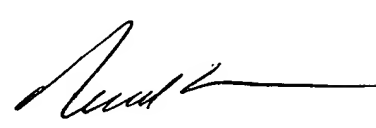
Any inquiry of a general nature or relating to the status of
this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Kim CHU
whose telephone number is (703) 305-3032 between 9:30 am to 6:00
pm, Monday to Friday.

cc 10/24/01

Kim-Kwok CHU
Examiner AU2651
October 24, 2001

(703) 305-3032



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600